Valenrod

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FILE 'REGISTRY' ENTERED AT 17:29:24 ON 02 JUN 2006

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STRUCTURE FILE UPDATES: 1 JUN 2006 HIGHEST RN 886490-27-3 DICTIONARY FILE UPDATES: 1 JUN 2006 HIGHEST RN 886490-27-3

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http://www.cas.org/ONLINE/UG/regprops.html

VAR G1=AK/13
VAR G2=AK/13/14
VAR G3=O/N
REP G4=(1-20) A
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 14
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 13
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 14

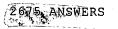
STEREO ATTRIBUTES: NONE

£44

SCR 2040 2675 SEA FILE=REGISTRY SSS FUL L1 AND L2

100.0% PROCESSED 456166 ITERATIONS

SEARCH TIME: 00.00.17



=> £ile caplus; d que nos 110; d que nos 112 FILE 'CAPLUS' ENTERED AT 17:29:39 ON 02 JUN 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE COVERS 1907 - 2 Jun 2006 VOL 144 ISS 24 FILE LAST UPDATED: 1 Jun 2006 (20060601/ED)

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L1		STR								
L2		SCR	2040							
L4	2675	SEA	FILE=REGIST	RY SSS F	UL L1 AN	D L2				
L5	2863	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	L4				
L9	462	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	GAS?	(3A)	HYDRAT?	(3A) INHIBIT?	
(L,10)	(2	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	L5 AN	ID L9			
L1		STR								
L2		SCR	2040							
L4	2675	SEA	FILE=REGIST	RY SSS F	UL L1 AN	D L2				
L5	2863	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	L4				
L11	21269	SEA	FILE=CAPLUS	ABB=ON	PLU=ON	CORRO	SION	INHIBITO	ORS+PFT/CT	
(L12)			FILE=CAPLUS			L5 AN			, , , , , , , , , , , , , , , , , , , ,	
=> s 110 L14		L10 (OR L12							

4 LIU OR L12

=> d ibib ed abs hitstr hitind 114 1-4

```
L14 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                        2004:700323 CAPLUS
DOCUMENT NUMBER:
                         141:209796
                        Betaines and quaternary salts as corrosion
TITLE:
                        inhibitors and natural gas
                        hydrate inhibitors with improved
                        water solubility and biodegradability
                         Dahlmann, Uwe; Feustel, Michael
INVENTOR(S):
                        Clariant GmbH, Germany
PATENT ASSIGNEE(S):
                        Eur. Pat. Appl., 16 pp.
SOURCE:
                        CODEN: EPXXDW
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                        German
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
     PATENT NO.
                        KIND DATE
                                         APPLICATION NO.
                                                                 DATE
     -----
                                           -----
                                           EP 2004-2387
     EP 1450004
                               20040825
                         A1
                                                                  20040204
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     DE 10307729
                         в3
                               20040826
                                           DE 2003-10307729
                                                                  20030224
     NO 2004000582
                         Α
                               20040825
                                           NO 2004-582
                                                                  20040209
     US 2004163306
                         Α1
                               20040826
                                           US 2004-783188
                                                                  20040220
PRIORITY APPLN. INFO.:
                                           DE 2003-10307729 A 20030224
OTHER SOURCE(S):
                        MARPAT 141:209796
     Entered STN: 27 Aug 2004
AΒ
     Natural gas hydrate inhibitors are compds.
     of general formula R1R2R3N+-B-X-C(:0)-D-C(:0)-Y-R4, in which: (1) R1,R2 =
     C1-22-alkyl, C2-22-alkenyl, C6-30-aryl, or C7030-alkylaryl, (2) R3 =
     C1-22-alkyl, C2-22-alkenyl, C6-30-aryl, or C7-30-alkylaryl, -CHR5-COO-, or
     -O-, (3) R4 = M, H, or C1-100-heteroatom-containing substituent (M is a
     cation), (4) B is optionally substituted C1-10-alkyl, (5) D = D =
     substituted or unsubstituted C1-600-heteroatom group, (6) X,Y =
     independently -0- or -NR6-, and (7) R5,R6 = H, C1-22-alkyl, C2-22-alkenyl,
     C6-30-aryl, or C7-300-alkylaryl. The compds. are typically prepared by
     conversion of a corresponding alkenylsuccinic anhydride with a
     N, N-dialkylaminoalkanol (especially (N, N-dialkylamino)ethanolamine), to give
the
     mono- or bisderiv., which is then quaternized. The compds. also have use
     as corrosion inhibitors.
IΤ
     742087-35-0P 742096-64-6P 742096-67-9P
     RL: MOA (Modifier or additive use); SPN (Synthetic preparation); PREP
     (Preparation); USES (Uses)
        (corrosion inhibitor and natural gas
        hydrate inhibitor; betaine inner salts as corrosion
        inhibitors and natural gas hydrate
        inhibitors with improved water solubility and biodegradability)
     742087-35-0 CAPLUS
RN
CN
     3,6,9,12,15-Pentaoxaheptadecane-1,17-diaminium, N,N,N',N'-tetrabutyl-N,N'-
     dimethyl-4,14-dioxo-, sulfate (1:1) (9CI) (CA INDEX NAME)
     CM
     CRN 742087-34-9
```

CMF C30 H62 N2 O7

PAGE 1-B

$$\begin{array}{c} \text{Me} \\ \mid \\ -\text{CH}_2 - \text{CH}_2 - \text{N} \xrightarrow{+} \text{Bu-n} \\ \text{n-Bu} \end{array}$$

CM 2

CRN 14808-79-8 CMF O4 S

RN 742096-64-6 CAPLUS

CN 1-Butanaminium, N-butyl-N-[2-[3-carboxy-1-oxo(tetrapropenyl)propoxy]ethyl]-N-methyl-, inner salt (9CI) (CA INDEX NAME)

 $D1-(C_{12}H_{23})$

RN 742096-67-9 CAPLUS

CN 1-Butanaminium, N,N'-[[1,4-dioxo-2-(tetrapropenyl)-1,4-butanediyl]bis(oxy-2,1-ethanediyl)]bis[N-butyl-N-methyl-, sulfate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 742096-66-8

CMF C38 H76 N2 O4 CCI IDS

CM 2

CRN 14808-79-8 CMF O4 S

IC ICM E21B037-06

ICS C07C007-20

CC 51-5 (Fossil Fuels, Derivatives, and Related Products)

ST quaternized alkylaminoethanol alkenylsuccinate ester natural gas hydrate inhibitor; betaine inner salt natural gas hydrate inhibitor; butylaminoethanol quaternized alkenylsuccinate ester gas hydrate inhibitor

IT Alcohols, uses

RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)

(amino, reaction products, N,N-dialkylamino derivs., reaction products with alkenylsuccinic anhydride; betaine inner salts as corrosion inhibitors and natural gas hydrate

inhibitors with improved water solubility and biodegradability)

IT Corrosion inhibitors

(betaine inner salts as corrosion **inhibitors** and natural **gas hydrate inhibitors** with improved water solubility and biodegradability)

IT Inclusion reaction

(clathration, of natural gas, inhibitors for; betaine inner salts as corrosion inhibitors and natural gas

hydrate inhibitors with improved water solubility and biodegradability)

IT Natural gas hydrates

RL: FMU (Formation, unclassified); FORM (Formation, nonpreparative)

(formation of, inhibitors for; betaine inner salts as

corrosion inhibitors and natural gas

hydrate inhibitors with improved water solubility and biodegradability)

IT 25189-83-7, Poly(vinylcaprolactam)

RL: MOA (Modifier or additive use); USES (Uses)

(corrosion inhibitor and natural gas

hydrate inhibitor; betaine inner salts as corrosion inhibitors and natural gas hydrate inhibitors with improved water solubility and biodegradability) IT 742087-35-0P 742096-64-6P 742096-67-9P RL: MOA (Modifier or additive use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses) (corrosion inhibitor and natural gas hydrate inhibitor; betaine inner salts as corrosion inhibitors and natural gas hydrate inhibitors with improved water solubility and biodegradability) IT 742087-33-8P 742096-60-2P 742096-62-4P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (synthesis and quaternization of; betaine inner salts as corrosion inhibitors and natural gas hydrate inhibitors with improved water solubility and biodegradability) L14 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN 2004:700322 CAPLUS ACCESSION NUMBER: DOCUMENT NUMBER: 141:209795 Betaine inner salts as corrosion inhibitors TITLE: and natural gas hydrate inhibitors with improved water solubility and biodegradability Dahlmann, Uwe; Feustel, Michael INVENTOR(S): Clariant GmbH, Germany PATENT ASSIGNEE(S): SOURCE: Eur. Pat. Appl., 14 pp. CODEN: EPXXDW DOCUMENT TYPE: Patent LANGUAGE: German FAMILY ACC. NUM. COUNT: PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. _____ EP 2004-2383 20040825 20040204 EP 1450003 A1 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK DE 10307728 A1 20040909 DE 2003-10307728 20030224 DE 10307728 В4 20050922 20040209 NO 2004000583 Α 20040825 NO 2004-583 20050512 US 2004-783153 20040220 US 2005101495 A1 PRIORITY APPLN. INFO.: DE 2003-10307728 A 20030224 MARPAT 141:209795 OTHER SOURCE(S): ED Entered STN: 27 Aug 2004 Corrosion inhibitors and natural gas hydrate AΒ inhibitors are compds. of general formula R1R2R3N+-B-X-C(:O)-D-C(:0)-Y-R4, in which: (1) R1,R2 = C1-22-alkyl, C2-22-alkenyl, C6-30-aryl, or C7030-alkylaryl, (2) R3 = C1-22-alkyl, C2-22-alkenyl, C6-30-aryl, or C7-30-alkylaryl, -CHR5-COO-, or -O-, (3) R4 = M, H, or C1-100-heteroatom-containing substituent (M is a cation), (4) B is optionally substituted C1-10-alkyl, (5) D = -CH2CH2 or C1-600-substituted ethylene group, (6) X,Y = -0- or -NR6-, and (7) R5,R6 = H, C1-22-alkyl, C2-22-alkenyl, C6-30-aryl, or C7-300-alkylaryl. The compds. are typically prepared by conversion of a corresponding alkenylsuccinic anhydride with a N, N-dialkylaminoalkanol (especially (N, N-dialkylamino)ethanolamine), to give the

mono- or bisderiv., which is then quaternized.

IT 742096-64-6P 742096-65-7P 742096-67-9P 742096-69-1P

RL: MOA (Modifier or additive use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(synthesis of, as corrosion inhibitors and natural

gas hydrate inhibitors; betaine inner salts

as corrosion inhibitors and natural gas

hydrate inhibitors with improved water solubility and

biodegradability)

RN 742096-64-6 CAPLUS

CN 1-Butanaminium, N-butyl-N-[2-[3-carboxy-1-oxo(tetrapropenyl)propoxy]ethyl]-N-methyl-, inner salt (9CI) (CA INDEX NAME)

$$D1-(C_{12}H_{23})$$

RN 742096-65-7 CAPLUS

CN 1-Butanaminium, N-butyl-N-[2-[3-carboxy-1-oxo(pentapropenyl)propoxy]ethyl]-N-methyl-, inner salt (9CI) (CA INDEX NAME)

$$D1-(C_{15}H_{29})$$

RN 742096-67-9 CAPLUS

CN l-Butanaminium, N,N'-[[1,4-dioxo-2-(tetrapropenyl)-1,4-butanediyl]bis(oxy-2,1-ethanediyl)]bis[N-butyl-N-methyl-, sulfate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 742096-66-8 CMF C38 H76 N2 O4

CCI IDS

CM 2

CRN 14808-79-8 CMF O4 S

RN 742096-69-1 CAPLUS

CN 1-Butanaminium, N,N'-[[1,4-dioxo-2-(pentapropenyl)-1,4-butanediyl]bis(oxy-2,1-ethanediyl)]bis[N-butyl-N-methyl-, sulfate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 742096-68-0 CMF C41 H82 N2 O4 CCI IDS

CM 2

CRN 14808-79-8 CMF O4 S

IC ICM E21B037-06

```
ICS E21B041-02; C23F011-14; C10L003-06; C07C227-00; C07C229-02;
          C07C233-00
     51-5 (Fossil Fuels, Derivatives, and Related Products)
CC
     quaternized alkylaminoethanol alkenylsuccinate ester corrosion inhibitor;
ST
     betaine inner salt natural gas hydrate
     inhibitor; butylaminoethanol quaternized alkenylsuccinate ester
     corrosion inhibitor
ΙT
     Alcohols, uses
     RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or
     reagent); USES (Uses)
        (amino, reaction products, N, N-dialkylamino derivs., reaction products
        with alkenylsuccinic anhydride; betaine inner salts; betaine inner
        salts as corrosion inhibitors and natural gas
        hydrate inhibitors with improved water solubility and
        biodegradability)
IT
     Corrosion inhibitors
        (betaine inner salts as corrosion inhibitors and natural
        gas hydrate inhibitors with improved water
        solubility and biodegradability)
ΙT
     Inclusion reaction
        (clathration, of natural gas, inhibitors for; betaine inner salts as
        corrosion inhibitors and natural gas
        hydrate inhibitors with improved water solubility and
        biodegradability)
IT
     Natural gas hydrates
     RL: MSC (Miscellaneous)
        (formation of, inhibitors for; betaine inner salts as
        corrosion inhibitors and natural gas
        hydrate inhibitors with improved water solubility and
        biodegradability)
IT
     742096-60-2P
                    742096-61-3P
                                   742096-62-4P
                                                  742096-63-5P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (synthesis and quaternization of; betaine inner salts as corrosion
        inhibitors and natural gas hydrate
        inhibitors with improved water solubility and biodegradability)
     110-15-6DP, Succinic acid, polyisobutenyl derivs., mono- and
IT
     bis(2-dibutylmethylammonio)ethyl esters, sulfates 742096-64-6P
     742096-65-7P 742096-67-9P 742096-69-1P
     RL: MOA (Modifier or additive use); SPN (Synthetic preparation); PREP
     (Preparation); USES (Uses)
        (synthesis of, as corrosion inhibitors and natural
        gas hydrate inhibitors; betaine inner salts
        as corrosion inhibitors and natural gas
        hydrate inhibitors with improved water solubility and
        biodegradability)
L14 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                         2004:282001 CAPLUS
DOCUMENT NUMBER:
                         141:57637
TITLE:
                         Pyridine-phenolic resin corrosion inhibitor for
                         ferrous metals in subacid media
                         Shelegov, B. V.; Fonberg, V. M.; Miroshnichenko, L.
INVENTOR(S):
                         E.; Grek, V. V.
PATENT ASSIGNEE(S):
                         Ukraine
SOURCE:
                         Russ., No pp. given
                         CODEN: RUXXE7
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         Russian
FAMILY ACC. NUM. COUNT:
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PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RU 2225461	C2	20040310	RU 2001-132126	20011126
PRIORITY APPLN. INFO.:			RU 2001-132126	20011126

ED Entered STN: 06 Apr 2004

AB The invention is suitable in the production of oil and gas for corrosion protection of pressure maintenance systems and utilization of waste water systems. The inhibitor contains mixture of coal pyridine bases and phenolic resin-byproduct of process of production of synthetic phenol by the Cumol method; monat. iso-alcs. C3-C5 (e.g., benzene-toluene-xylyl) are used as solvent. During mixing, many organic agents are formed in the form of strong-protective film on metal surface. The resulting inhibitor provides enhanced efficiency at min. concentration of inhibitor.

IT **3810-71-7**, D6

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(corrosion inhibitor; pyridine-phenolic resin corrosion inhibitor for ferrous metals in subacid media)

RN 3810-71-7 CAPLUS

CN Ethanaminium, 2,2'-[(1,8-dioxo-1,8-octanediyl)bis(oxy)]bis[N,N,N-trimethyl-, diiodide (9CI) (CA INDEX NAME)

●2 I-

IC ICM C23F011-04 ICS C23F011-14

CC 55-10 (Ferrous Metals and Alloys) Section cross-reference(s): 51

IT Corrosion inhibitors

Corrosion prevention

(pyridine-phenolic resin corrosion inhibitor for ferrous metals in subacid media)

IT **3810-71-7**, D6

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(corrosion inhibitor; pyridine-phenolic resin corrosion inhibitor for ferrous metals in subacid media)

L14 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1975:606793 CAPLUS

DOCUMENT NUMBER: 83:206793

TITLE: Functional ionic polyelectrolyte compositions

INVENTOR(S): Schaper, Raymond J.
PATENT ASSIGNEE(S): Cagon Corp., USA
SOURCE: Ger. Offen., 45 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2502914	A1	19750731	DE 1975-2502914	19750124
DK 7406596	Α	19750929	DK 1974-6596	19741218
SE 7500161	Α	19750925	SE 1975-161	19750108
NL 7500325	Α	19750729	NL 1975-325	19750110
CA 1057892	A1	19790703	CA 1975-217890	19750114
GB 1479786	Α	19770713	GB 1975-2449	19750120
FR 2320330	A1	19770304	FR 1975-1915	19750122
FR 2320330	B1	19790810		
СН 600039	Α	19780615	CH 1975-864	19750124
JP 50107100	A2	19750823	JP 1975-10174	19750125
US 4166894	Α	19790904	US 1977-852406	19771117
PRIORITY APPLN. INFO.:			US 1974-436419	A 19740125
			US 1976-676777	A3 19760414

ED Entered STN: 12 May 1984

Carboxamide-containing quaternary ammonium polymers were prepared by treating tetrasubstituted diamines from ethylenediamines and acrylamide (I) [79-06-1] or acrylamide-containing compds. with 1,4-dibromobutane (II). The polymers were useful as electroconducting coatings for paper, as strengthening agents for paper, and as corrosion inhibitors. Thus, 3,3',3'',3'''-(ethylenedinitrilo)tetrapropionamide (III) [4097-84-1], prepared via Michael addition reaction of NH2CH2CH2NH2 [107-15-3] with I, was refluxed with II at 95-100° for 136 hr to give II-III quaternary copolymer (III) [57350-68-2]. Paper coated with III had a surface resistance >1015 ohm (at 13% relative humidity) at coating weight 0.726 kg/279 m2. III was also used as wet and dry strengthening agents for paper. The rate of corrosion of a metal electrode in an air and H2O environment was 59 mg/cm2/day in the presence of 100 ppm III, in comparison to 90-5 mg/cm2/day in the absence of III.

IT 57350-69-3P

RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (preparation and reaction of, with dibromobutane)

RN 57350-69-3 CAPLUS

CN 4,8,11,15-Tetraazaoctadecane-1,18-diaminium, 8,11-bis[3-[[1,1-dimethyl-3-(trimethylammonio)propyl]amino]-3-oxopropyl]-N,N,N,N',N',N',N',3,3,16,16-decamethyl-5,14-dioxo-, tetrachloride (9CI) (CA INDEX NAME)

●4 Cl-

IT 57344-11-3P 57350-70-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and uses of)

RN 57344-11-3 CAPLUS

CN Poly[[bis[3-[[1,1-dimethyl-3-(trimethylammonio)propyl]amino]-3-oxopropyl]iminio]-1,2-ethanediyl[bis[3-[[1,1-dimethyl-3-(trimethylammonio)propyl]amino]-3-oxopropyl]iminio]-1,4-butanediyl dibromide tetrachloride] (9CI) (CA INDEX NAME)

PAGE 1-A

●2 Br-

PAGE 1-B

$$-CH_{2}-CH_{2}-N^{+}Me_{3}$$
 $-CH_{2}-CH_{2}-N^{+}Me_{3}$
 $-CH_{2}-CH_{2}-N^{+}Me_{3}$

RN 57350-70-6 CAPLUS

CN 1-Butanaminium, 3,3',3'',3'''-[1,2-ethanediylbis[nitrilobis[(1-oxo-3,1-propanediyl)imino]]]tetrakis[N,N,N,3-tetramethyl-, tetrachloride, polymer with 1,4-dibromobutane (9CI) (CA INDEX NAME)

CM 1

CRN 57350-69-3 CMF C46 H100 N10 O4 . 4 C1

•4 C1-

CM 2

CRN 110-52-1 CMF C4 H8 Br2

Br-(CH₂)₄-Br

IC C07C; D21H

CC 35-3 (Synthetic High Polymers)

IT Corrosion inhibitors

(for metals, carboxamido-containing quaternary ammonium polymers as)

IT 4097-84-1P **57350-69-3P** 57356-17-9P

RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction of, with dibromobutane)

IT **57344-11-3P** 57344-12-4P 57344-13-5P 57350-68-2P

57350-70-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and uses of)

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FILE 'CAOLD' ENTERED AT 17:30:39 ON 02 JUN 2006

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FILE COVERS 1907-1966

FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

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This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

L1 STR L2 SCR 2040

L4 2675 SEA FILE=REGISTRY SSS FUL L1 AND L2

L13 275 SEA FILE=CAOLD ABB=ON PLU=ON L4

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=> d his full
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L6

L8

(FILE 'HOME' ENTERED AT 17:19:02 ON 02 JUN 2006) D SAVED

FILE 'REGISTRY' ENTERED AT 17:19:18 ON 02 JUN 2006 ACTIVATE VAL188STR/O

L1STR

D L1

L*** DEL 1 S L1 SAMPLE SCREEN 2040 L2

10 SEA SSS SAM L1 AND L2 L3

D SCAN 2675 SEA SSS FUL L1 AND L2 T.4 SAVE L4 VAL188FU/A TEMP

FILE 'CAPLUS' ENTERED AT 17:21:59 ON 02 JUN 2006

2863 SEA ABB=ON PLU=ON L4 L5

337 SEA ABB=ON PLU=ON GAS HYDRATE (3A) INHIBIT?

L7 2 SEA ABB=ON PLU=ON L5 AND L6

28 SEA ABB=ON PLU=ON L5 AND PRY>2003

462 SEA ABB=ON PLU=ON GAS? (3A) HYDRAT? (3A) INHIBIT? L9

2 SEA ABB=ON PLU=ON L5 AND L9 L10

D SCAN

E CORROSION INHIBITORS+ALL/CT

21269 SEA ABB=ON PLU=ON CORROSION INHIBITORS+PFT/CT L11

4 SEA ABB=ON PLU=ON L5 AND L11 L12

L*** DEL 2 S L12 NOT L10

D SCAN

FILE 'CAOLD' ENTERED AT 17:27:01 ON 02 JUN 2006 L13 275 SEA ABB=ON PLU=ON L4 SAVE L13 VAL188CAO/A TEMP

FILE 'REGISTRY' ENTERED AT 17:29:24 ON 02 JUN 2006 D STAT QUE L4

FILE 'CAPLUS' ENTERED AT 17:29:39 ON 02 JUN 2006

D OUE NOS L10

D OUE NOS L12

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